CLASSIFICATION

15 FEB 1960

COVER SHEET ONLY

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TOP SECRET CHESS.

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25X1

DUE TO ATMOSPHERIC CONDITIONS, THE QUALITY OF THE PHOTOGRAPHY RANGED FROM POOR TO EXCELLENT. EXCEPT FOR LOCAL AREAS VEILED BY HAZE, THE HEAVIEST CLOUD COVER WAS ENCOUNTERED BETWEEN DNEPROPETROVSK AND THE BLACK SEA. NO CAMERA MALFUNCTION OCCURRED. THIS PRELIMINARY REPORT COVERS ITEMS OF IMPORTANT INTELLIGENCE SIGNIFICANCE IN RESPONSE TO REQUIREMENTS LEVIED BY THE INTELLIGENCE COMMUNITY.

#### SUMMARY

SWINGING IN A WIDE ARC FROM THE ARAL SEA TO THE CRIMEA, THE BAND OF PHOTO COVERAGE INCLUDED MANY MAJOR ITEMS OF INTELLIGENCE INTEREST INCLUDING THE FOLLOWING.

#### AIRCRAFT AND AIRFIELDS

SEVEN BOMBERS OF A NEW TYPE RESEMBLING BACKFIN.

COVERAGE WAS ALSO OBTAINED OF SOME 100 AIRFIELDS OR REPORTED AIRFIELD SITES. THREE OF THESE ARE NEW MAJOR FIELDS AND TWO ARE NEW MINOR FIELDS. THE REMAINING INCLUDE 24 MAJOR FIELDS AND 24 MINOR FIELDS. A TOTAL OF 1973 AIRCRAFT WAS OBSERVED, INCLUDING 405 BOMBERS, 422 FIGHTERS, 553 OTHER TYPES, WITH 593 UNIDENTIFIED.

BOMBER AIRCRAFT INCLUDE THE 7 RESEMBLING BACKFIN, 51 BULL, 47 BADGER, AND 300 BEAGLE. FIGHTER AIRCRAFT INCLUDE 22 FISHPOT/FISHBED, 4 FITTER, 4 FLASHLIGHT, 19 FARMER, AND 373 FAGOT/FRESCO.

#### GUIDED MISSILES

PROBABLE	LAUNCH A	ND	INSTRUMENTATION	FACILITIES	AT
CHELKAR.	•				

EIGHTEEN ADDITIONAL HEXAGON SAM SITES AND FOUR ADDITIONAL SAM SUPPORT INSTALLATIONS. A SECOND LOOK AT THE"TWIN EYE"SITE AT BALAKLAVA.

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#### ELECTRONICS

TWO NEW-TYPE RADAR INSTALLATIONS AND FIRST COVERAGE OF A MOON VLF STATION.

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#### RAILROADS

COVERAGE OF APPROXIMATELY 4,500 NM OF THE USSR RAIL NET.

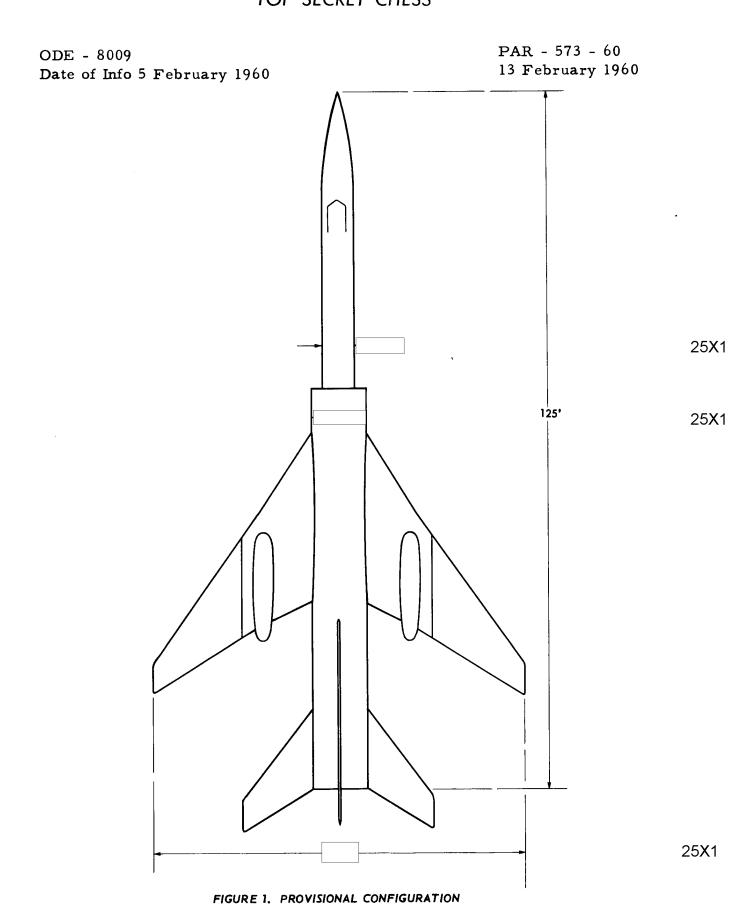
#### SHIPPING

A SECOND LOOK, UNDER ADVERSE CONDITIONS, AT NAVAL SHIPPING IN THE SEVASTOPOL AREA.

#### A. NEW BOMBER AIRCRAFT

NEW BOMBER AIRCRAFT, KAZAN NORTH AIRFIELD 55 52 N - 49 Ø8 E

25	5 <b>X</b> 1
THE STATE OF THE S	5X1 5X1
PROBABLE MAIN GEAR HOUSING SIMILAR TO THAT OF THE BADGER IS MOUNTED APPROXIMATELY 15 FT FROM THE CENTER OF THE FUSELAGE.  CHEEK INLETS ARE LOCATED ON THE FUSELAGE JUST FORWARD  OF THE LEADING EDGE OF THE WING. FORWARD OF THE INLETS THE  FUSELAGE  AFT OF THE INLETS THE FUSELAGE IS 25	5X1
THAT OF THE FORMER. THE COCKPIT IS LOCATED WELL FORWARD AND THE NOSE TAPERS TO A SHARP POINT. THE SWEPT BACK EMPENNAGE ASSEMBLY CONSISTS OF A LOW HORIZONTAL TAIL MOUNTED ON THE FUSELAGE AND A LARGE, SHARPLY SWEPT VERTICAL TAIL. WITH THE EXCEPTION OF THE DIMENSIONS BEING 20 TO 25	5X1
PERCENT LARGER, AND A FEW DESIGN MODIFICATIONS THE AIRPLANE RESEMBLES BACKFIN.  THERE ARE 7 OF THE AIRCRAFT ON THE FIELD. SIX ARE PARKED ALONG THE PARKING RAMP. THE OTHER IS PARKED IN FRONT OF THE LARGE REVETMENT IDENTICAL TO THOSE NOTED AT PLANTS 1 AND 18 IN KUYBYSHEV  THE AFT SECTION OF THE STREET THE AIRCRAFT. TWO CABLE LINES LEAD TO NEARBY BUILDINGS, AND SEVERAL PERSONNEL ARE VISIBLE AROUND THE AIRCRAFT INDICATING	<b>X</b> 1



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#### B. GUIDED MISSILES

#### 1. HEXADIC SAM SITES AND SUPPORT FACILITIES

A TOTAL OF EIGHTEEN HEXADIC SURFACE-TO-AIR MISSILE (SAM) SITES AND FOUR SUPPORT FACILITIES HAVE BEEN IDENTIFIED IN THE KAZAN, GORKIY, SAROVA, KHARKOV, DNEPROPETROVSK, ZAPOROZHYE, AND SEVASTOPOL AREAS (FIGURE 2). CONSTRUCTION OF ALL SAM SITES AND SUPPORT FACILITIES APPEARS COMPLETE.

TWO SAM SITES AND ONE SUPPORT FACILITY ARE LOCATED IN THE KAZAN AREA. NEITHER OF THE TWO SITES HAS ANY EQUIPMENT INSTALLED. HEAVY SNOW COVERS THESE SITES.

TWO SAM SITES ARE LOCATED IN THE GORKIY AREA. NO EQUIPMENT IS VISIBLE DUE TO THE EXTREME DISTANCE.

TWO SAM SITES AND ONE SUPPORT FACILITY ARE LOCATED IN THE SAROVA AREA. ONE SITE HAS AN OPERATIONAL CAPABILITY. THE OTHER SITE HAS TRANSPORTERS, AND UNIDENTIFIED VEHICLES AND VANS IN THE VEHICLE PARKING AREA, BUT HAS NO EQUIPMENT INSTALLED.

FOUR SAM SITES AND ONE SUPPORT FACILITY ARE LOCATED IN THE KHARKOV AREA. THREE OF THE SITES HAVE AN OPERATIONAL CAPABILITY.

FOUR SAM SITES HAVE BEEN IDENTIFIED IN THE DNEPROPETROVSK AREA. TWO OF THE SITES HAVE AN OPERATIONAL CAPABILITY.

TWO SAM SITES ARE LOCATED IN THE ZAPOROZHYE AREA, AND BOTH OF THESE SITES HAVE AN OPERATIONAL CAPABILITY.

TWO SAM SITES AND ONE SUPPORT FACILITY HAVE BEEN IDENTIFIED IN THE SEVASTOPOL AREA. BOTH SITES HAVE AN OPERATIONAL CAPABILITY.

A TOTAL OF 92 MISSILES, 72 LAUNCHERS, AND 11 FRUIT SET RADARS HAVE BEEN IDENTIFIED AT THE SAM SITES AND SUPPORT FACILITIES.

A TABULATION OF THESE EIGHTEEN SAM SITES AND FOUR SUPPORT FACILITIES IS PRESENTED IN THE FOLLOWING TABLE.

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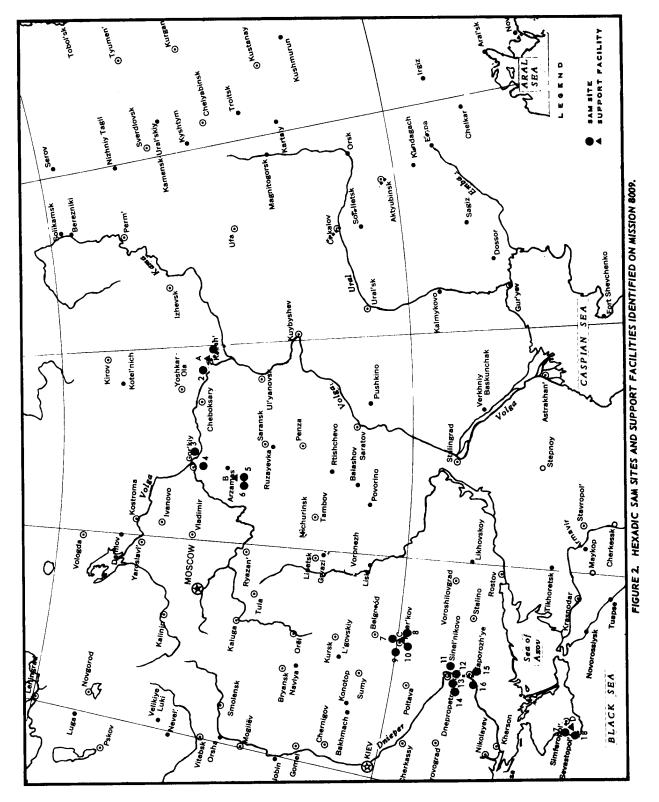
# TABULATION OF HEXADIC SAM SITES AND SAM SUPPORT FACILITIES IN THE KAZAN, GORKIY, SAROVA, KHARKOV, DNEPROPETROVSK, ZAPOROZHYE, & SEVASTOPOL AREAS

NO•	DIST & DIR FROM CITY	COORD	STATUS OF CONSTRUCT	LAUNCHERS	MISSILES	GUIDANCE
1	14NM ENE	555ØN 49Ø5E	<u>KAZAN</u> COMPLETE			
2	14NM NW	5553N 4849E	COMPLETE			•
Α	5NM E	5548N 4914E	COMPLETE		24	
			GORKIY			
3	15NM ESE	5617N 4418E	POSS COMPL	UNK	UNK	UNK
4	20NM S	56Ø3N 4358E	POSS COMPL	UNK	UNK	UNK
			SAROVA			
5	9NM SW	545ØN 43Ø7E	COMPLETE	UNK	UNK	UNK
6	13NM SW	5449N 4301E	COMPLETE	6	6	1 FRUIT SET
В	3NM W	5455N 4317E	COMPLETE	·		
			KHARKO	v		
7	7.5NM NNE	5007N 3616E	COMPLETE	<del>-</del> 6	6	1 FRUIT SET
-8	13NM SE	4953N 3631E	COMPLETE	6	6	1 FRUIT SET
9	12NM WNW	5000N 3556E	COMPLETE	<b>6 POS</b> S		
10	10NM SSW	495ØN 3611E	COMPLETE	6	6	1 FRUIT SET
C	8NM SE	4956N 3627E	COMPLETE			
			DNEDRO	PETROVSK		
11	19NM ESE	4822N 3527E	COMPLETE	6 PROB	1 PROB	1 FRUIT SET
12	12NM SSE	4817N 3506E	COMPLETE	6	UNK	1 FRUIT SET
13	12NM SW	4822N 3447E	COMPLETE	6	3 & 3 POSS	1 FRUIT SET
14	25NM WSW	4817N 3425E	COMPLETE	UNK	UNK	UNK

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			ZAPOROZ	HYE		
15	15NM SSE	4736N 3518E	COMPLETE	6	6	1 FRUIT SET
16	15NM SSW	4736N 3500E	COMPLETE	6	6 PROB	1 FRUIT SET
v.			SEVASTO	POL		
17	7NM NNE	4443N 3333E	COMPLETE	6	1 PROB	1 FRUIT SET
18	5NM SSW	4431N 3331E	COMPLETE	6		1 FRUIT SET (PROB)
D	3NM SSE	4434N 3333E	COMPLETE		24	
	TOTAL			72	92	11

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# 2. INSTRUMENTATION AND FIELD-TYPE LAUNCH FACILITIES: CHELKAR AREA 47 50 N - 59 36 E (CHELKAR)

25X1

THREE PROBABLE INSTRUMENTATION AREAS AND ONE PROBABLE FIELD-TYPE LAUNCH INSTALLATION HAVE BEEN IDENTIFIED WITHIN A 50-MILE RADIUS OF CHELKAR. THESE FACILITIES ARE PROBABLY ASSOCIATED WITH THE KAPUSTIN YAR/VLADIMIROVKA MISSILE TEST CENTER.

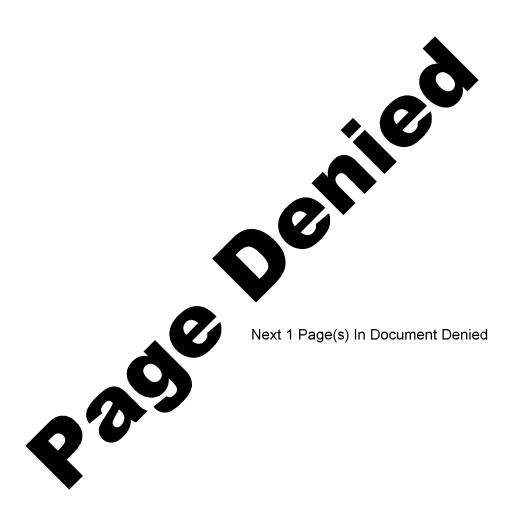
INSTRUMENTATION AREAS - TWO OF THE INSTRUMENTATION AREAS ARE SITUATED NEAR CHELKAR AND THE THIRD ABOUT 45 MILES TO THE SOUTHEAST, NEAR TUGUZ. THE LATTER AREA, POSITIONED AT ABOUT 47 20N - 60 20E, CONSISTS OF THREE FENCED SITES WHICH CONTAIN VARIOUS TYPES OF ELECTRONIC EQUIPMENT. THE TWO AREAS NEAR CHELKAR IS ADJACENT TO CHELKAR AIRFIELD, AND CONSISTS OF A SECURED AREA CONTAINING TOKEN-TYPE RADARS AND SEVERAL OTHER PIECES OF ELECTRONIC EQUIPMENT. SECOND AREA NEAR CHELKAR IS LOCATED ABOUT TWO MILES SOUTHEAST OF THE TOWN. IT CONSISTS OF TEN INSTRUMENTATION BUILDINGS, EACH 20 FEET SQUARE AND SIMILAR TO THOSE FOUND AT THE KAPUSTIN YAR/VLADIMIROVKA RANGEHEAD. THESE TEN BUILDINGS ARE POSITIONED AT VARYING DISTANCES ALONG A LINE ABOUT 8,400 FEET IN LENGTH. A POSSIBLE CONTROL BUILDING IS SITUATED TO ONE SIDE AND NEAR THE CENTER OF THE BUILDING ARRAY.

PROBABLE FIELD-TYPE LAUNCH INSTALLATION - THIS INSTAL-LATION IS LOCATED APPROXIMATELY 25 MILES NORTH OF CHELKAR, AT ABOUT 48 16N - 59 45E. IT CONSISTS OF A FENCED SUPPORT AREA AND A FENCED FIELD-TYPE LAUNCH AREA WITH SEVEN ASSOCIATED VEHICLE REVETMENTS.

### PROBABLE MISSILE LAUNCH FACILITY, NEAR BALAKLAVA

25X1

THE TWIN PADS OF THE PROBABLE MISSILE LAUNCH SITE NEAR BALAKLAVA APPEAR UNCHANGED SINCE THE PREVIOUS PHOTO COVERAGE IN 1956. NEW SUPPORT BUILDINGS, THREE OF WHICH ARE DRIVE—THROUGH, HAVE BEEN CONSTRUCTED WITHIN THE AREA ENCLOSED BY THE DOUBLE SECURITY FENCE. THE THREE DRIVE—THROUGH BUILDINGS ARE LOCATED ADJACENT TO THE OLD FORT IN THE SOUTHEASTERN EXTREMITY OF THE SECURED AREA. THE UNEXPLAINED DARK SPLOTCHY PATTERN, SUGGESTING CAMOUFLAGE, APPEARING ON THE PADS IN 1956 NOW EXTENDS TO THE SURFACE OF THE SERVICE ROADS IN THE VICINTY OF THE PADS.



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						25 <b>X</b> 1

#### D. ELECTRONICS

1. NEW-TYPE RADAR INSTALLATIONS.

SAROVA AND MICHURINSK

54 55 N - 43 19 E -- 52 54 N - 40 30 E

25**X**1

TWO NEW-TYPE, NEARLY IDENTICAL RADAR INSTALLATIONS HAVE BEEN LOCATED. ONE IS 27 NM SW OF SAROVA AT 54 35N - 42 53E (ALSO REPORTED UNDER STANTSIYA SHAL). THE OTHER IS 2 NM E OF MICHURINSK AT 52 55N - 40 40E. THE INSTALLATIONS, WHICH ARE DOUBLE-FENCED, EACH CONTAIN AT LEAST 5 RADARS, IFF EQUIPMENT, AND HF/VHF COMMUNICATIONS.

1. VLF NAVIGATIONAL AID STATION (MOON)
44 53 N - 33 52 E

	· ·
- 1	
- 1	
- 1	
- 1	
- 1	

25X1

A VERY LOW FREQUENCY NAVIGATIONAL AID STATION IS LOCATED APPROXIMATELY 10 NM WSW OF SIMFEROPOL. IT CONSISTS OF A SECURED AREA CONTAINING 4 MASTS 700 FEET HIGH POSITIONED SO AS TO FORM A SQUARE APPROXIMATELY 960 FEET ON A SIDE, AND ABOUT 20 SUPPORT BUILDINGS, ONE OF WHICH IS A LARGE MULTI-STORY CONTROL BUILDING.

#### E. AIRFIELDS

1. AKTYUBINSK AIRFIELD 50 14 N - 57 13 E

25X1

AIRCRAFT OBSERVED 1 BEAGLE, 5 CRATE, 2 COACH, 14 CREEK, 1 CAB, 4 COLT, 2 MAX, 4 HARE

9,300 X 450 FT NNW/SSE RUNWAY 5,000 X 340 FT NE/SW RUNWAY

SNOW COVER PRECLUDES DETERMINATION OF RUNWAY SURFACE.

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2•	NEW AIRFIELD 2.5 NM SE OF ALGA 49 53 N - 57 22 E	
		25X1
	AIRCRAFT OBSERVED 38 U/I SINGLE ENGINE	
	2,700 X 1,000 FT LANDING AREA (SNOW COVERED), WITH THE MAJOR AXIS ORIENTED NE/SW	
	A SECURED AREA WITH 36 OBJECTS RESEMBLING RADAR DISHES IS SITUATED NW OF THE AIRCRAFT PARKING AREA.	
3•	BELGOROD NORTH AIRFIELD  50 39 N - 36 35 E	
		25 <b>X</b> 1
	AIRCRAFT OBSERVED 1 COLT (PROBABLE), 10 CREEK (PROBABLE)	
	SNOW COVER PRECLUDES DETERMINATION OF LANDING AREA.	
4•	NEW AIRFIELD 3 NM SE OF BUGURUSLAN  53 35 N - 52 33 E	
		25 <b>X</b> 1
	AIRCRAFT OBSERVED 7 U/I SINGLE-ENGINE LIAISON-TYPE	
	SNOW COVER PRECLUDES DETERMINATION OF RUNWAY AND AIRFIELD BOUNDARIES	
5∙	BUGURUSLAN AIRFIELD 53 36 N - 52 26 E	
		25 <b>X</b> 1
	AIRCRAFT OBSERVED 2 COLT, 1 COACH (POSSIBLE), 38 U/I SINGLE-ENGINE LIAISON-TYPE	
	N/S RUNWAY. SNOW-COVERED. SURFACE AND DIMENSIONS UNDETERMINABLE	
6.	BUZULUK AIRFIELD 52 49 N - 52 14 E	
		25X1
	NO AIRCRAFT OBSERVED	

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25X1

N/S RUNWAY. SNOW-COVERED. LENGTH AND SURFACE NOT DETERMINABLE

7. <u>CHELKAR AIRFIELD</u> 47 50 N - 59 36 E

25X1

AIRCRAFT OBSERVED 1 COACH/CRATE, 1 MOOSE

ONE 5,100 X 230 FT NNE/SSW RUNWAY (SNOW COVERED)

8. NEW AIRFIELD 17 NM NE OF CHKALOV 51 58 N - 55 26 E

25X1

AIRCRAFT OBSERVED 55 BEAGLE, 2 CREEK, 1 CREEK (PROBABLE)

6,800 X 425 FT E/W BLACKTOP RUNWAY, CLEARED OF SNOW

9. <u>CHKALOV AIRFIELD</u> 51 48 N - 55 Ø7 E

25X1

AIRCRAFT OBSERVED 2 CAB

2,300 X 120 FT NNE/SSW RUNWAY 2,900 X 175 FT WNW/ESE RUNWAY

SNOW COVER PRECLUDES DETERMINATION OF RUNWAY SURFACES

FIELD IS FLYAWAY FIELD FOR ADJACENT AIRCRAFT FACTORY, ZAVOD 47

10. CHKALOV CIVIL AIRFIELD 51 47 N - 55 21 E

AIRCRAFT OBSERVED 1 CAB, 10 CREEK, 2 COLT, 4 U/I

SINGLE-ENGINE LIAISON-TYPE

ONE 3,000 X 300 FT E/W RUNWAY
ONE 3,500 X 260 FT NNW/SSE RUNWAY

SNOW COVER PRECLUDES DETERMINATION OF RUNWAY SURFACES

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11.	CHKALOV/KARGALA						AIF	RFIELD
	51	52	N ·	- !	55	Ø9	Ε	

25X1

AIRCRAFT OBSERVED 24 CAB

SNOW COVER PREVENTS DETERMINATION OF RUNWAY SURFACE AND MEASUREMENTS

12. CHKALOV SOUTH AIRFIELD 51 39 N - 55 04 E

25X1

AIRCRAFT OBSERVED 1 BULL, 39 FAGOT/FRESCO (POSSIBLE)

9,000 X 630 FT E/W RUNWAY, SNOW-COVERED

SECURED AREA ALONG THE E EDGE OF THE BUILDING AREA CONTAINS 9 OBJECTS RESEMBLING RADAR DISHES

13. CHKALOV SOUTHWEST AIRFIELD
51 43 N - 55 Ø4 E

25X1

AIRCRAFT OBSERVED 1 BULL, 13 BEAGLE, 53 FAGOT/FRESCO, 3 CAB, 2 CREEK, 8 FLORA (POSSIBLE), 3 MAX/MOOSE

8,700 X 300 FT E/W RUNWAY, SNOW-COVERED

NEW AIRFIELD 2.5 NM SE OF CHUCHKOVO 54 15 N - 41 30 E

25X1

AIRCRAFT OBSERVED 38 U/I

9,000-FT-LONG N/S RUNWAY, SNOW-COVERED. FIELD IS ON FAR OBLIQUE

15. CHUGUYEV AIRFIELD 49 50 N - 36 38 E

25X1

AIRCRAFT OBSERVED 160 U/I SWEPT-WING FIGHTERS

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6,750 X 175 FT N/S CONCRETE RUNWAY. PARALLEL TAXIWAY AND CROSSOVER TAXIWAY. LARGE PARKING APRON EAST OF TAXIWAY.

16.	DO	NGUZ	<u>. A</u>	IR	FI	ELD	
	51	31	N ·	-	55	ØØ	E

AIRCRAFT OBSERVED 5 FAGOT/FRESCO (POSSIBLE), 1 CAB;

8,300 X 200 FT N/S RUNWAY, SNOW-COVERED

17. DONGUZ NORTHWEST AIRFIELD
51 36 N - 54 59 E

7 COLT (PROBABLE)

AIRCRAFT OBSERVED 1 COACH/CRATE (POSSIBLE)

SNOW COVER PRECLUDES DETERMINATION OF RUNWAY AND AIRFIELD BOUNDARIES

18. <u>GRAKOVO AIRFIELD</u> 49 42 N - 36 47 E

25X1

25X1

25X1

NO AIRCRAFT OBSERVED

NW/SE RUNWAY, SNOW-COVERED, DIMENSIONS AND SURFACE UNDETERMINABLE

19. NEW AIRFIELD 5 NM SSW OF GRYAZI 52 25 N - 39 52 E

25X1

AIRCRAFT OBSERVED 30 U/I SINGLE-ENGINE FIGHTERS, 6
CAB/COACH

8,500 X 250 FT NE/SW RUNWAY, SNOW-COVERED. ADJACENT STRIP MAY BE GRAVEL OR SOD AND APPEARS TO BE AN ALTERNATE FOR BAD-WEATHER USE

20. KACHA AIRFIELD 44 47 N - 33 33 E

25X1

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AIRCRAFT OBSERVED 76 FRESCO

6,800 X 170 FT NE/SW CONCRETE RUNWAY

21. KARANKUT AIRFIELD 45 35 N - 34 17 E

25**X**1

NO AIRCRAFT OBSERVED BECAUSE OF HAZE AND POOR RESOLUTION

8,200 X 240 FT NE/SW CONCRETE RUNWAY. TWO WORLD WAR II RUNWAYS SOUTH OF THIS RUNWAY NOW ARE POSSIBLE PARKING AREAS, BUT HAZE PRECLUDES MEASUREMENT

TYPE I SPECIAL WEAPONS STORAGE AREA IS LOCATED 1,500 FT NW OF THE SW END OF THE RUNWAY

22. <u>KAZAN AIRFIELD</u> 55 47 N - 49 12 E

25X1

AIRCRAFT OBSERVED 2 BULL, 6 CAB, 5 COACH, 5 COLT, 6
U/I SINGLE-ENGINE TRANSPORTS

NE/SW RUNWAY AND NW/SE RUNWAY, BOTH SNOW-COVERED, PRECLUDING MEASUREMENT

23. <u>KAZAN NORTH AIRFIELD</u> 55 52 N - 49 Ø8 E

25**X**1

AIRCRAFT OBSERVED 7 BOMBERS (RESEMBLING BACKFIN), 1 BEAGLE, 2 COOKER, 8 CAMEL, 1 CAB, 1 U/I SINGLE-ENGINE LIAISON-TYPE

2 RUNWAYS -- ONE NW/SE 10,200 X 300 FT, CONCRETE, CLEARED OF SNOW. OTHER E/W 4,500 X 265 FT, SNOW-COVERED

24. KAZAN NORTHWEST AIRFIELD 55 51 N - 49 03 E

25X1

AIRCRAFT OBSERVED 8 FAGOT/FRESCO, 1 COLT, 2 CREEK, 23 HOUND, 2 HOUND WITHOUT ROTOR

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25X1

NO EVIDENCE OF RUNWAYS ON THIS SNOW COVERED FIELD

25.	KHARKOV AIRFIELD 49 55 N - 36 17 E	
		25X1
	AIRCRAFT OBSERVED 2 CAT, 10 CAB, 5 COACH, 21 COLT, 16 CREEK, FUSELAGES OF 4 COACH/CRATE	
	7,100 X 250 FT E/W BLACKTOP RUNWAY, CLEARED OF SNOW.  NW/SE RUNWAY, SNOW—COVERED, PRECLUDING MEASUREMENT  AND SURFACE DETERMINATION. PROBABLE PACKED SNOW  RUNWAY PARALLEL TO AND NORTH OF E/W RUNWAY	
26.	KHARKOV/ALEKSEYEVKA AIRFIELD 50 03 N - 36 17 E	
		25X1
	AIRCRAFT OBSERVED 4 BULL, 5 BEAGLE, 1 BADGER, 4 FLASHLIGHT, 9 FRESCO, 3 FAGOT, 8 CAB, 1 CRATE, 1 COLT, 2 CREEK, 1 HARE, 2 HOUND	
	ONE 4,300 X 250 FT NNW/SSE POSSIBLE RUNWAY, SNOW COVERED	
27.	KHARKOV/LYUBOTIN AIRFIELD 49 58 N - 36 00 E	
		25X1
	AIRCRAFT OBSERVED 1 COLT, 4 CREEK (PROBABLE), 29 BEAST (POSSIBLE), 1 MAX/MOOSE (POSSIBLE)	
	SNOW COVERED, APPEARS TO BE A MINOR SOD FIELD	
28•	KHARKOV NORTH AIRFIELD 50 01 N - 36 16 E	
		25 <b>X</b> 1
	AIRCRAFT OBSERVED 1 COLT	
	6,800 X 350 FT NE/SW RUNWAY, SNOW COVERED	
29•	KHARKOV/ROGAN AIRFIELD 49 55 N - 36 26 E	

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AIRCRAFT OBSERVED 17 BEAGLE, 23 CAB, 3 HOUND

POSSIBLE RUNWAY 5.300 (ESTIMATED) X 300 FT NW/SE, SNOW-COVERED, SURFACE AND EXACT MEASUREMENTS UNDETERMINABLE

#### 30. KOCHUBEYEVKA AIRFIELD 49 45 N - 35 01 E

25**X**1

AIRCRAFT OBSERVED AT LEAST 28 U/I FIGHTERS (POSSIBLE)

9,000-FT-LONG NNE/SSW RUNWAY, SNOW-COVERED, WIDTH AND SURFACE UNDETERMINABLE

#### 31. KRIVOY ROG AIRFIELD 47 51 N - 33 18 E

25X1

AIRCRAFT OBSERVED NUMBER AND TYPE MADE UNDETERMINABLE BY SCALE AND OBLIQUITY

NW/SE RUNWAY, SNOW-COVERED, WITH PARALLEL TAXIWAY, MEASUREMENTS AND SURFACE NOT DETERMINABLE

32. <u>KURAYLI AIRFIELD</u> 50 25 N - 57 02 E

.

25X1

4,700 X 900 FT NW/SE LANDING AREA, SNOW-COVERED

FENCED AREA WITH 36 OBJECTS RESEMBLING RADAR DISHES

33. <u>LIPETSK AIRFIELD</u>
52 37 N - 39 34 E

25X1

NO AIRCRAFT OBSERVED. AIRFIELD APPEARS ON FAR OBLIQUE AND IS SNOW-COVERED

34. LIPETSK WEST AIRFIELD
52 38 N - 39 27 E

25X1

NO AIRCRAFT OBSERVED

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8,500-FT-LONG WNW/ESE PROBABLE ASPHALT RUNWAY, CLEARED OF SNOW, WIDTH NOT DETERMINABLE (ASSOTW HAS 6,600 X 280 EST. FT CONCRETE). PARKING AREA IMPROVED OVER PICTURE IN ASSOTW -- IT IS INCREASED IN LENGTH AND NOW IS PARALLEL TO RUNWAY

35.	MEL	TT	POL	AIF	RFI	ELD
	46	53	N -	35	19	E

25X1

AIRCRAFT OBSERVED 38 BULL, 18 BADGER

7.760 X 240 FT NE/SW CONCRETE RUNWAY

FACILITIES INCLUDE LARGE POL STORAGE AREA: WITH 4 LARGE BURIED TANKS AND NUMEROUS SMALLER HORIZONTAL TANKS

36. MICHURINSK AIRFIELD
52 56 N - 40 30 E

25X1

AIRCRAFT OBSERVED 66 BEAGLE, 1 BULL, 1 COACH, 3 CREEK (PROBABLE)

NNW/SSE PROBABLE HARD-SURFACE RUNWAY, SNOW-COVERED BUT IN USE. SPLIT IN PHOTOGRAPHY PRECLUDES MEASUREMENT

37. MORSHANSK AIRFIELD 53 26 N - 41 43 E

.

25**X**1

AIRCRAFT OBSERVED 39 U/I SINGLE-ENGINE SWEPT-WING FIGHTERS

7,250 X 120 FT WNW/ESE RUNWAY, SNOW COVERED

38. <u>MUROM AIRFIELD</u> 55 26 N - 42 19 E

55 26 N - 42 19 E

25X1

NUMEROUS AIRCRAFT OBSERVED BUT SCALE MAKES COUNT AND IDENTIFICATION UNDETERMINABLE

NNE/SSW CONCRETE RUNWAY. OBLIQUITY AND SCALE PRECLUDE RUNWAY MEASUREMENT.

#### TOP SECRET CHESS

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25X1

25X1

25X1

39.	OK1	TYAE	BRSK	OYE	AI	RFIELD
	45	19	N -	. 34	Ø6	E

25X1

NO AIRCRAFT OBSERVED OWING TO HAZE. RUNWAY (SHOWN AS 7.800 X 210 FT ON JULY 1956 PHOTOGRAPHY) VISIBLE BUT HAZE PRECLUDES FURTHER INTERPRETATION

40. ORSK AIRFIELD 51 17 N - 58 36 E

25X1

RUNWAY APPROXIMATELY NW/SE. SMALL SCALE PRECLUDES DETERMINATION OF LENGTH OR OTHER DETAILS

41. POLTAVA AIRFIELD
49 37 N - 34 30 E

7 11/1

AIRCRAFT OBSERVED 34 U/I SWEPT-WING BOMBERS, 7 U/I BOMBERS (POSSIBLE)

8,000-FT-LONG E/W CONCRETE RUNWAY

A TYPE II SPECIAL WEAPONS STORAGE SITE IS SITUATED 3.5 NM NNW OF THE AIRFIELD.

42. PROSANDEYEVKA AIRFIELD
54 09 N - 41 40 E

APPEARS INACTIVE. HAS 18 ABANDONED AIRCRAFT REVET-MENTS, AND NO RUNWAY OR AIRFIELD FACILITIES ARE EVIDENT

43. SAKI AIRFIELD 45 08 N - 33 35 E

\_\_\_\_\_

AIRCRAFT OBSERVED 6 BEAGLE (PROBABLE), 20 BEAGLE (POSSIBLE)

NE/SW CONCRETE RUNWAY. MEASUREMENTS PRECLUDED BY HAZE AND CLOUDS (ONLY ONE OF 2 REPORTED RUNWAYS VISIBLE ON PHOTOGRAPHY)

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25X1

SMALL U/I STORAGE AREA 2.5 NM E OF FIELD; HAS LOOP TURNAROUND AND IS CONNECTED TO FIELD BY PERMANENT ROAD

44•	SARABUZ AIRFIELD 45 07 N - 33 59 E	05.
		25 <b>X</b> ′
	AIRCRAFT OBSERVED AT LEAST 17 BADGER, AT LEAST 17 BULL	
	9,000 X 290 FT NNE/SSW CONCRETE RUNWAY	
	HAZE AND CLOUDS PRECLUDE DETAILED INTERPRETATION	
45•	SASOVO AIRFIELD 54 21 N - 41 58 E	
		25 <b>X</b> ′
	AIRCRAFT OBSERVED 3 COLT+ 29 CREEK/MULE TYPE+ 41 U/I SINGLE-ENGINE	
	LANDING AREA SNOW-COVERED, PRECLUDING INTERPRETATION	
46•	SOLILETSK AIRFIELD 51 10 N - 55 00 E	
		25 <b>X</b> ′
	AIRCRAFT OBSERVED 79 FAGOT/FRESCO (POSSIBLE)	
	SNOW-COVERED E/W LANDING STRIP 9.700 FT LONG WITH 1.500-FT-WIDE CLEARED AREA	
47•	SEVASTOPOL AIRFIELD 44 34 N - 33 31 E	
		25 <b>X</b> ′
	AIRCRAFT OBSERVED 4 COLT, 8 CREEK	
	2,500 X 2,300 FT LANDING FIELD	
48•	SEVASTOPOL/BELBEK AIRFIELD	

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AIRCRAFT OBSERVED 18 FARMER, 7 FRESCO, 6 FAGOT, 2 MIG-TYPE, 3 CREEK

6,200 X 180 FT NE/SW CONCRETE RUNWAY. NE END HAS 980 X 180 FT SOD OVERRUN, SW END HAS 1,440 X 180 FT SOD OVERRUN

AIRFIELD IS ENCLOSED BY PERIMETER FENCE AND HAS NUMEROUS BARRACKS AND ADMINISTRATION-TYPE BUILDINGS. LIMITED HANGAR AND MAINTENANCE FACILITIES

49. SEVASTOPOL NORTHWEST SEAPLANE STATION
44 38 N - 33 31 E

25X1

NO AIRCRAFT OBSERVED

50. TAMBOV AIRFIELD 52 42 N - 41 22 E

25X1

AIRCRAFT OBSERVED APPROXIMATELY 117 U/I JETS

10,250 X 280 FT N/S PROBABLE CONCRETE RUNWAY, WITH PARALLEL TAXIWAY TO THE W AND CROSSOVER TAXIWAYS. FORMERLY A SOD FIELD ABOUT 8,000 X 6,000 FT

51. TAMBOV/DONSKOYE AIRFIELD
52 48 N - 41 30 E

25**X**1

AIRCRAFT OBSERVED 1 CAB (POSSIBLE), 2 COLT (POSSIBLE), 6 CREEK (POSSIBLE)

RUNWAY N/S, PROBABLE SOD. SNOW COVER PRECLUDES DETERMINATION OF DIMENSIONS.

52. <u>USMAN AIRFIELD</u> 52 Ø1 N - 39 39 E

25X1

AIRCRAFT REVETMENTS VISIBLE. SNOW COVER PRECLUDES INTERPRETATION

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53.	VOLCHANSK AIRFIELD 50 19 N - 36 55 E	25 <b>X</b> 1
	AIRCRAFT OBSERVED 1 BULL, 6 FAGOT/FRESCO, 32 CAB	
	NE/SW RUNWAY, DIMENSIONS AND SURFACE UNDETERMINABLE OWING TO SNOW COVER	
54•	VORONEZH/CHERTOVITSKOYE AIRFIELD 51 48 N - 39 13 E	
		25 <b>X</b> 1
	AIRCRAFT OBSERVED 1 COLT, 3 CREEK, 14 MAX/MOOSE, 6 BEAST (POSSIBLE)	
	DETERMINATION OF LANDING AREA PRECLUDED BY SNOW COVER	
55•	VORONEZH EAST AIRFIELD 51 39 N - 39 15 E	
		25 <b>X</b> 1
	AIRCRAFT OBSERVED 11 BADGER, 1 BEAGLE, 15 CAT (MODIFIED), 1 COLT, 1 CREEK, 2 CAB, 2 MAX	
	7,000 X 230 FT NE/SW CONCRETE RUNWAY, CLEARED OF SNOW	
56.	VORONEZH NORTH AIRFIELD 51 42 N - 39 10 E	
		25 <b>X</b> 1
	AIRCRAFT OBSERVED 4 CRATE, 7 CAB, 4 COLT, 3 CREEK, 2 MAX/MOOSE (PROBABLE), 1 HOUND, 2 U/I SINGLE-ENGINE TRAINER-TYPE	:
	2 RUNWAYS, SNOW-COVERED, SURFACE UNDETERMINABLE 6,425 X 375 FT NE/SW AND 5,000 X 375 FT NW/SE	
57.	VORONEZH SOUTHWEST AIRFIELD 51 37 N - 39 Ø8 E	
		25 <b>X</b> 1
	AIRCRAFT OBSERVED 1 BULL, 47 BEAGLE, 39 FRESCO (PROBABLE), 4 FITTER (PROBABLE), 22 FISHPOT, 2 COLT	,

4 CREEK, 6 CAB, 1 CRATE, 2 COACH, 2 HARE, 3 HOUND

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8,200 X 250 FT E/W RUNWAY, SNOW-COVERED, SURFACE TYPE NOT DETERMINABLE.

DOUBLE-FENCED STORAGE AREA, MATERIAL U/I, 6,000 FT SW OF W END OF RUNWAY

58. YOSHKAR-OLA AIRFIELD 56 45 N - 47 56 E

25X1

FAR OBLIQUE PHOTOGRAPHY MAKES PRESENCE OF AIRCRAFT UNDETERMINABLE

11,000 (APPROX.) FT NNE/SSW RUNWAY, SNOW-COVERED, WITH PARALLEL TAXIWAY

59. ZAPOROZHYE EAST AIRFIELD 47 52 N - 35 18 E

25X1

AIRCRAFT OBSERVED 8 BEAGLE, 60 BEAGLE (PROBABLE), 28 FAGOT/FRESCO (POSSIBLE), 3 COACH/CRATE (POSSIBLE), 1 TRANSPORT-TYPE (POSSIBLE), 2 U/I SINGLE ENGINE

NEW 7,500 X 250 FT NNE/SSW BLACKTOP RUNWAY, CLEARED OF SNOW

A DOUBLE-FENCED UNIDENTIFIED STORAGE AREA IS SITUATED APPROXIMATELY 1.800 FEET EAST OF THE SSW END OF THE RUNWAY. TWO OTHER FORMER RUNWAYS NOW APPEAR TO BE USED AS PARKING AREAS.

60. ZAPOROZHYE SOUTH AIRFIELD
47 47 N - 35 13 E

25X1

NO AIRCRAFT OBSERVED

SOD LANDING FIELD 4,500 X 3,000 FT

61. ZAPOROZHYE SOUTHEAST AIRFIELD
47 48 N - 35 15 E

25X1

AIRCRAFT OBSERVED 1 CAB, 1 U/I TWIN ENGINE, 10 COLT/ CREEK (PROBABLE)

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4,500 X 3,800 FT SOD FIELD WITH MAJOR AXIS E/W

62. AIRFIELDS PREVIOUSLY REPORTED BUT NOT CONFIRMED
THE FOLLOWING AIRFIELDS WERE NOT CONFIRMED BECAUSE OF
CLOUDS. SNOW COVER. OR DISTANCE.

KURSK EAST AIRFIELD 51 45 N - 36 18 E

ARZAMAS AIRFIELD 55 20 N - 43 44 E

YEFREMOV AIRFIELD 53 09 N - 38 03 E

BELGOROD AIRFIELD 50 35 N - 36 40 E

TOTSKOYE AIRFIELD 52 31 N - 52 45 E

YELETS WEST AIRFIELD 52 38 N - 38 25 E

DZHANKOY AIRFIELD 45 42 N - 34 25 E

SOVETSKIY AIRFIELD 45 22 N - 34 57 E

ISLAM-TEREK AIRFIELD 45 10 N - 35 11 E

NIKIFOROVKA AIRFIELD 52 53 N - 40 49 E

YEVPATORIYA AIRFIELD 45 13 N - 33 22 E

BOGOYAVLENSKOYE AIRFIELD 53 16 N - 40 18 E

RYAZHSK AIRFIELD 53 41 N - 40 00 E

YEVPATORIYA SEAPLANE STATION 45 11 N - 33 23 E

SIMFEROPOL NORTH AIRFIELD 45 Ø1 N - 33 59 E

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SIMFEROPOL AIRFIELD 44 55 N - 34 Ø4 E

PESCHANOYE AIRFIELD 44 52 N - 33 37 E

IZYUM AIRFIELD 49 15 N - 37 Ø9 E

YELETS AIRFIELD 52 39 N - 38 31 E

DNEPROPETROVSK/VOLOSHKOYE AIRFIELD 48 21 N - 35 Ø6 E

DNEPROPETROVSK/VOLOSHKOYE NORTHEAST AIRFIELD 48 33 N - 35 Ø6 E

SEVASTOPOL WEST SEAPLANE STATION 44 36 N - 33 27 E

# 63. AIRFIELDS PREVIOUSLY REPORTED BUT ABANDONED OR NOT APPARENT ON THE PHOTOGRAPHY

GRYAZI AIRFIELD 52 28 N - 39 56 E

KRASNOGRAD AIRFIELD 49 24 N - 35 29 E

SEVASTOPOL/KHERSONESSKIY AIRFIELD
44 34 N - 33 32 E

KHARKOV/GROBLI AIRFIELD 49 56 N - 36 21 E

DNEPRODZERZHINSK AIRFIELD 45 29 N - 34 36 E

SOLENOYE AIRFIELD 48 14 N - 34 51 E

VORONEZH AIRFIELD 51 39 N - 39 Ø8 E

U/I AIRFIELD 1 NM E OF ZEMLYANSK 51 54 N - 38 46 E

SASOVO EAST AIRFIELD 54 21 N - 41 59 E

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KHOBOTOVO AIRFIELD 53 02 N - 40 22 E

MICHURINSK WEST AIRFIELD 52 55 N - 40 25 E

SELEZNI AIRFIELD 52 49 N - 41 18 E

TAMBOV NORTHWEST AIRFIELD 52 46 N - 41 22 E

AKTYUBINSK NORTHEAST AIRFIELD 50 19 N - 57 20 E

KAZAN WEST AIRFIELD 55 51 N - 48 54 E

KAZAN EAST AIRFIELD 55 48 N - 49 23 E

SHATSK AIRFIELD 54 03 N - 41 44 E

STARYY OSKOL NORTHWEST AIRFIELD 51 20 N - 37 45 E

#### F. MAJOR INSTALLATIONS AND AREAS

1.	AKTYUBINSK						
	50	17	N	-	57	10	E

25X1

EXCELLENT COVERAGE OF THE CITY SHOWS SEVERAL INDUSTRIES BUT NO UNUSUAL ACTIVITY AND NO APPARENT EXPANSION. COVERAGE INCLUDES THE HUGE FERROALLOY PLANT 5 NM NW OF THE CITY, A HOUSING AREA ROUGHLY 1/4 THE SIZE OF THE CITY, LOCATED SOUTH OF THE PLANT, THE ALGA CHEMICAL PLANT (WHICH PROBABLY PRODUCES SULFURIC ACID) 20 NM S OF THE CITY, AND AN OIL FIELD 45 NM SW OF THE CITY.

2. BELGOROD 50 36 N - 36 35 E

25X1

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THE BELGOROD AREA IS COMPLETELY COVERED BY GOOD QUALITY PHOTOGRAPHY WHICH REVEALS EXPANSION OF THE CITY AND SEVERAL INDUSTRIES, INCLUDING A LARGE CEMENT PLANT. A RADIO STATION IS SITUATED ON A HILL SOUTH OF THE CITY. AN UNIDENTIFIED RAIL—SERVED INSTALLATION IS UNDER CONSTRUCTION 13 NM NORTHWEST OF THE CITY.

3. BUGURUSLAN 53 39 N - 52 27 E

25X1

A GREAT EXPANSION TO THE SOUTH OF THE OLDER PART HAS APPROXIMATELY DOUBLED THE SIZE OF THE CITY. THE AREA INCLUDES SCATTERED LIGHT INDUSTRIES AND OIL FIELDS.

4. <u>BUZULUK</u> 52 47 N - 52 16 E

24 41 N - 32 10 C

25X1

THIS CITY APPEARS ON FAR OBLIQUE PHOTOGRAPHY AND IS HAZE-COVERED.

5. <u>CHELKAR</u> 47 51 N - 59 38 E

25X1

THE CITY IS FULLY COVERED BY GOOD-QUALITY PHOTOGRAPHY.

6. <u>CHKALOV</u> 51 47 N - 55 Ø7 E

25X1

THE CITY IS COVERED 100% BY GOOD-QUALITY
PHOTOGRAPHY. THERE IS MODERATE EXPANSION IN THE NW
PART OF THE CITY, WITH SCATTERED INDUSTRIES PRESENT.
CHKALOV AIRFRAME PLANT NO 47 APPEARS ACTIVE. NO
AIRCRAFT ARE IN THE PLANT AREA, BUT AIRCRAFT CRATES
ARE PRESENT IN THE EASTERN PART OF THE PLANT. TWO
COMMUNICATION SITES, ABOUT 1.5 NM APART, ARE VISIBLE
5 NM NNE OF THE CITY. ONE SITE HAS 2 RHOMBICS AND
SEVERAL STICK MASTS. THE OTHER SITE HAS AT LEAST
4 RHOMBICS AND SEVERAL MASTS.

A MILITARY TRAINING AREA IS LOCATED 16.5 NM SSW OF CHKALOV. AT THE VILLAGE OF DONGUZ.

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7.	DONSKOYE					
	50	15	N -	58	31	Ε

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25X1

A CHROMIUM MINE, AND NICKEL AND IRON HAVE BEEN REPORTED IN THIS AREA. PHOTOGRAPHY SHOWS THREE LARGE OPEN PITS, EACH RAIL SERVED.

8. DNEPRODZERZHINSK 48 31 N - 34 37 E

25X1

GOOD COVERAGE OF THE ENTIRE CITY, AFFECTED ONLY BY SMOKE FROM INDUSTRIAL PLANTS, INCLUDES THE NITROGEN-HEAVY WATER COMBINE AND INDUSTRIAL EXPANSION SINCE WORLD WAR II AS FOLLOWS.

- 1. STEEL PLANT DZERZHINSKY, WITH A NEW BATTERY OF FURNACES AND A ROLLING MILL.
- 2. RAILROAD CAR PLANT PRAVDA, WITH SEVERAL ADDITIONAL BUILDINGS.
- 3. COKE CHEMICAL PLANT ORDZHONIKIDZE, WITH INCREASED FACILITIES.
- 4. COKE CHEMICAL PLANT KAMENSKOYE, REPORTED NEAR COMPLETION IN 1952. THIS PLANT APPEARS TO BE IN FULL PRODUCTION, SERVING THE NITROGEN-HEAVY WATER COMBINE AND THE STEEL PLANT.
  - 5. A NEW U/I PLANT U/C, ADJACENT TO THE COKE PLANT.
- 6. A NEW PLANT AT 48 27 N 34 42 E. ADJACENT TO AN 8-GUN HEAVY AA POSITION.

THERE IS NEW URBAN DEVELOPMENT EAST, SOUTH, AND WEST OF THE CITY, AS WELL AS WITHIN THE CITY.

AT A RAIL SPUR TERMINUS APPROXIMATELY 8 NM NW OF THE CITY, OUT OF THE NORMAL FLOW OF TRAFFIC, THERE IS A NEW U/I PLANT, INCLUDING THREE LARGE MULTISTORY BUILDINGS, A HEAVY-INDUSTRIAL-TYPE BUILDING, AND A POWER STATION WITH NEW HOUSING ADJACENT TO IT.

ON THE DNEPR, ABOUT 3 NM NW OF THE TOWN, THERE IS A NEW LOW DAM AND POWER PLANT IN EARLY STAGES OF CONSTRUCTION.
THE PROJECT INCLUDES A LARGE EARTH GOFFERDAM AND PROBABLE NAVIGATION LOCKS.

9. <u>DNEPROPETROVSK</u> 48 27 N - 35 00 E

25X1

HAZE AND CLOUD COVER PRECLUDE DETAILED INTERPRETATION OVER MUCH OF THE AREA. FOR EXAMPLE, STREET PATTERN AND BUILT-UP AREAS IN MANY INSTANCES ARE BARELY DISCERNIBLE.

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THE MOTOR VEHICLE FACTORY COMPLEX (DAZ) IS ONLY FAINTLY VISIBLE.

IN THE AREA AROUND DNEPROPETROVSK PHOTO QUALITY VARIES FROM POOR TO GOOD. MIDWAY BETWEEN DNEPROPETROVSK AND DNEPRODZHERZHINSK IS AN U/I ROAD AND RAIL—SERVED INSTAL—LATION SECURED BY DOUBLE FENCING, GUARD TOWERS, GATE HOUSE, AND PATROL ROADS. FEATURES OF THIS INSTALLATION, INCLUDING THE SECURITY, COMMUNICATIONS, AND WIDE—RADIUS ROAD TURNS, SUGGEST UTILIZATION OTHER THAN OPEN STORAGE.

AN AREA NEAR NOVOMOSKOVSK (48 38 N - 35 14 E) MAY BE THE PAVLOGRAD PROVING GROUND.

10. GORKIY 56 19 N - 44 00 E

25X1

THE CITY IS VISIBLE ON THE FAR OBLIQUE. SEVERAL LARGE INDUSTRIES WITH SMOKING STACKS CAN BE SEEN. AN ANTENNA FARM WITH 18 STICK MASTS IS LOCATED ON THE SOUTH SIDE OF THE OKA RIVER SSW OF THE CITY. A SAM SITE SSW OF THE CITY IS LOCATED AT ABOUT 56 Ø7N - 43 44E. ALSO VISIBLE IS A POSSIBLE PETROLEUM REFINERY SSE OF GORKIY. HAZE AND OBLIQUITY PRECLUDE A DETAILED INTERPRETATION OF THE URBAN AREA, AND THE AIRFIELDS ARE NOT READILY DISCERNIBLE.

11. <u>GRYAZI</u> 52 30 N - 39 57 E

25**X**1

COMPLETE COVERAGE OF THE AREA INCLUDES A DISTILLERY AND THREE RAIL YARDS. THE LARGEST OF WHICH HAS LOCOMOTIVE AND CAR REPAIR FACILITIES. THREE TRANSMISSION LINES CONVERGE AT A LARGE RAIL—SERVED SUBSTATION.

12. KAZAN 55 47 N - 49 Ø8 E

25X1

GOOD COVERAGE OF THE ENTIRE KAZAN AREA SHOWS EXTENT OF URBAN DEVELOPMENT, TRANSPORTATION NETWORKS, NUMEROUS INDUSTRIAL PLANTS, AND OTHER FACILITIES. AMONG THE LATTER ARE THE CHEMICAL TECHNICAL INSTITUTE IMENI KIROV, AND THE CHEMICAL RESEARCH INSTITUTE IMENI BUTLEROV. THE KAZAN CHEMICAL PLANT LENIN 40 INCLUDES A GW LOADING PLANT AND EXPLOSIVES STORAGE AREAS WHICH ARE BASICALLY UNCHANGED SINCE WORLD WAR II PHOTOGRAPHY. ALSO COVERED ARE AIRCRAFT PLANT 387, ENGINE PLANT 16, AND AIRFRAME PLANT 22. AIRCRAFT PLANT 387, REPORTED TO MANUFACTURE HELICOPTERS, HAS 13 FAGOT/

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FRESCO AND ONE PROBABLE FARMER IN OPEN STORAGE. THE PLANT IS RAIL-SERVED BUT HAS NO FLYAWAY FIELD. ENGINE PLANT 16. APPROXIMATELY 25 PERCENT LARGER THAN IN 1942. HAS 6 NEW-TYPE ENGINE TEST CELLS.

EXPLOSIVES STORAGE AREA NOVOYE ARAKHCHINO, NORTHWEST OF THE CENTER OF THE CITY, AND A NEW HIGHWAY BETWEEN KAZAN AND ZELENODOLSK ALSO APPEAR ON THE PHOTOGRAPHY.

YUDINO, 7 NM W OF KAZAN, SHOWS A 30% EXPANSION. IT HAS A LARGE RAILROAD CLASSIFICATION YARD WITH A LARGE OPEN STORAGE AREA AT THE EAST END OF THE YARD. THE STORAGE AREA REPORTED AS ITEM 10 ON ADF SHEET 0165-9999-1-25MA (PROV) HAS BEEN REMOVED.

13. KHARKOV 49 59 N - 36 14 E

25X1

THE ENTIRE CITY AND SURROUNDING AREA ARE COMPLETELY COVERED BY EXCELLENT QUALITY PHOTOGRAPHY. THE FOLLOWING ARE AMONG INSTALLATIONS COVERED IN THE CITY.

- 1. KHARKOV TRACTOR PLANT ORDZHONIKIDZE, EXPANDED BY ONE QUARTER TO ONE THIRD SINCE 1943 PHOTO COVERAGE.
- 2. KHARKOV BEARING PLANT 8, EXPANDED ABOUT 10 PERCENT SINCE 1943 COVERAGE.
- 3. KHARKOV MACHINE TOOL PLANT MOLOTOV, WITH ONE NEW ASSEMBLY BUILDING SINCE 1943.
- 4. KHARKOV AIRCRAFT ASSEMBLY PLANT 135, EXPANDED ABOUT 50 PERCENT SINCE 1951.
- 5. TWO NEW PROBABLE MECHANICS SCHOOLS, WITH VARIOUS TYPES OF AIRCRAFT.
- 6. KHARKOV TANK AND LOCOMOTIVE PLANT KOMINTERN 75, WITH ONLY MINOR CHANGES SINCE 1942. PRIME MOVERS AND TANKS ARE PARKED IN ROWS IN THE PLANT AREA. IN ADDITION, AT LEAST 110 SLENDER UNIDENTIFIED OBJECTS, APPROXIMATELY 30 FEET LONG, 4 TO 5 FEET WIDE, AND HAVING A SMALL UPWARD PROJECTION AT ONE END, ARE LOCATED AT TWO PLACES IN THE PLANT AREA.
- 7. KHARKOV AGRICULTURAL MACHINERY PLANT, WITH ONLY MINOR CHANGES SINCE 1942.
- 8. KHARKOV ELECTRO-MECHANICAL PLANT KHEMS, WITH ONLY MINOR CHANGES SINCE 1942.

SOUTHWEST OF KHARKOV, THE MILITARY COMPLEX AROUND CHUGUYEV AND THE ARMY BARRACKS AND AMMUNITION DEPOT NEAR BALAKLEYA ARE ALSO COVERED BY PHOTOGRAPHY. A COAL-BURING THERMAL POWER PLANT, SERVED BY A RAIL SPUR FROM THE KHARKOV — CHUGUYEV RAIL LINE, IS LOCATED 3.5 NM WSW OF CHUGUYEV.



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14. <u>LIPETSK</u>
52 37 N - 39 36 E

25**X**1

THE LIPETSK URBAN AREA APPEARS ON THE FAR OBLIQUE.
HAZE AND OBLIQUITY PRECLUDE A DETAILED INTERPRETATION OF THE
CITY, BUT NUMEROUS INDUSTRIES ARE EVIDENT AND IN OPERATION.
THE LIPETSK AMMUNITION DEPOT, WHICH IS RAIL-SERVED AND CONTAINS APPROXIMATELY 70 STORAGE BUILDINGS, IS ALSO COVERED.

15. MICHURINSK 52 53 N - 40 30 E

25X1

COMPLETE COVERAGE OF THIS RAIL CENTER INCLUDES FOUR RAIL YARDS, ONE LOCOMOTIVE AND CAR REPAIR PLANT, AND A POWER PLANT. THERE IS MODERATE TO HEAVY TRAFFIC IN THE YARDS, ONE OF WHICH HAS 15 EIGHTY-FOOT PROBABLE PASSENGER CARS.

16. <u>SEVASTOPOL</u> 44 36 N - 33 32 E

25X1

WIDESPREAD HAZE AND PARTIAL CLOUD COVER LIMITED

DETAILED INTERPRETATION IN THE SEVASTOPOL AREA.

NAVAL SHIPPING SEEN INCLUDED THE FOLLOWING -- 1 LIGHT

CRUISER, 2 OLD CRUISER HULLS, 12 DESTROYERS, 1 PROBABLE OLD

DESTROYER HULL, 3 DESTROYER ESCORTS, AND 13 SUBMARINES,

INCLUDING 5 SMALL COASTAL SUBS. OTHER SHIPPING NOTED -
SEVERAL AUXILIARIES, NUMEROUS MERCHANT SHIPS AND SMALL

CRAFT.

17. SHUMERLYA 55 32 N - 46 23 E

25X1

GOOD COVERAGE OF THIS CITY SHOWS A POWER PLANT, A REPORTED AIRCRAFT PLANT, SEVERAL OTHER INDUSTRIES, AND EXPANDED RAIL FACILITIES.

18.  $\frac{\text{TAMBOV}}{52 \ 43} \text{ N} - 41 \ 27 \text{ E}$ 

25X1

GOOD QUALITY, FAR-OBLIQUE COVERAGE OF THE CITY SHOWS RAILROAD ACTIVITY, PROBABLE MILITARY ACTIVITY, AND EXPANSION

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OF INDUSTRIES. AMONG INDUSTRIES COVERED ARE THE TAMBOV SYNTHETIC RUBBER PLANT, WHICH IS MUCH EXPANDED SINCE WORLD WAR II, AND THE KOTOVSK CHEMICAL AND EXPLOSIVES PLANT 204. THE NEARBY TOWN OF RAZZKAZOVO HAS UNIDENTIFIED INDUSTRIES AND STORAGE.

A STORAGE AREA, ON THE FAR OBLIQUE AND UNIDENTIFIED AS TO TYPE OF MATERIAL, IS LOCATED AT 52 25N - 41 30E, 16 NM S OF TAMBOV. THE AREA IS RAIL-SERVED, COVERS ABOUT 1,200 ACRES (2 X 1 MILE), AND CONTAINS 60 BUILDINGS.

19.	T01	rsk(				
	52	32	N -	52	45	E

25X1

THE CITY IS COVERED BY FAR OBLIQUE PHOTOGRAPHY. A POSSIBLE BARRACKS AREA, PARTIALLY CLOUD-COVERED, IS LOCATED ABOUT 1 NM NE OF THE CITY ON THE NORTH BANK OF THE RIVER. AN OIL FIELD IS LOCATED AT 52 38N - 53 ØØE, 14 NM NE OF THE CITY. NUCLEAR ACTIVITY IN THE AREA CANNOT BE IDENTIFIED.

20. <u>VORONEZH</u> 51 40 N - 39 12 E

25X1

THE CITY OF VORONEZH IS COVERED BY EXCELLENT QUALITY PHOTOGRAPHY. MAJOR INSTALLATIONS IN THE AREA INCLUDE VORONEZH AIRCRAFT ASSEMBLY PLANT 64, WHICH HAS A FINAL ASSEMBLY BUILDING ADDED SINCE 1942, VORONEZH AIRCRAFT ENGINE PLANT 265, SLIGHTLY EXPANDED SINCE 1942, AND VORONEZH SYNTHETIC RUBBER PLANT, WHICH HAS BEEN REBUILT SINCE 1942. A NEW TOWN AND A U/I RAIL-SERVED INDUSTRY APPEAR ON OBLIQUE PHOTOGRAPHY 37 NM ENE OF VORONEZH.

21. <u>ZAPOROZHYE</u> 47 50 N - 35 11 E

- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
- 1	

25X1

THE ZAPOROZHYE AREA IS COVERED BY PHOTOGRAPHY OF ONLY FAIR QUALITY BECAUSE OF WIDESPREAD HAZE. THE FOLLOWING ARE SOME OF THE MORE IMPORTANT INDUSTRIAL PLANTS NOTED.

- 1. ALUMINA AND ALUMINUM PLANT DNEPR. HAZE OBSCURES DETAILS.
- 2. METALLURGICAL COMBINE ZAPOROZHSTAL, WHICH IS ABOUT 60 TO 75 PERCENT LARGER THAN AT THE TIME OF WORLD WAR II COVERAGE.
- 3. CARBORUNDUM PLANT, WHICH IS EXPANDED SINCE WORLD WAR II COVERAGE.

31

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A DOUBLE-FENCED ROAD AND RAIL-SERVED STORAGE AREA; WITH 12 EARTH-COVERED OBLONG TANKS; IS LOCATED 10 NM NE OF ZAPOROZHYE.

22. <u>ZELENODOLSK</u> 55 50 N - 48 30 E

25X1

COVERAGE INCLUDES THE FOLLOWING INSTALLATIONS.

ZELENODOLSK SHIPYARD 340 -4 SUBCHASERS ARE VISIBLE (2 ON THE SIDE LAUNCHING WAYS AND 2 LOCKED IN THE ICE). THE YARD HAS BEEN CONSIDERABLY IMPROVED SINCE 1942 PHOTOGRAPHY.

ZELENODOLSK AMMUNITION AND AGRICULTURAL MACHINERY PLANT SERGO ORDZHONIKIDZE 184 -- THE PLANT HAS BEEN EXPANDED. THERE IS NO EVIDENCE OF FARM MACHINERY.

UNIDENTIFIED PLANT -- THE PLANT IS 2 NM W OF THE CITY IN A DOUBLE-FENCED AREA ABOUT 3,500 BY 2,500 FEET. THE AREA CONTAINS MORE THAN 20 BUILDINGS AND IS RAIL—SERVED. ABOUT 4,500 FEET W OF THE PLANT IS A FENCED STORAGE AREA, ABOUT 2,500 BY 1,000 FEET, CONTAINING AT LEAST 4 LARGE REVETTED BUILDINGS BELOW GROUND LEVEL AND SERVED BY A CONTINUATION OF THE SPUR SERVING THE PLANT. A LARGE REVETMENT LIES JUST SE OF THE STORAGE AREA IMMEDIATELY N OF THE RAIL LINE.

PLYWOOD PLANT FURNIR 3 -- APPEARS

ACTIVE.

ZELENODOLSK RAILROAD BRIDGE -- THIS BRIDGE OVER THE VOLGA IS NOW A DOUBLE BRIDGE, WITH BOTH SPANS THROUGH TRUSS.

NEW ALIGNMENT OF RAILROAD LINE 7 NM SW OF CITY REPORTED UNDER CONSTRUCTION IS NOW COMPLETE.

#### G. OTHER INSTALLATIONS

1. ANDREYEVKA 49 32 N - 36 37 E

25 <b>X</b> 1
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OBLIQUE PHOTOGRAPHY SHOWS THE ZMIYEVSKAYA GRES UNDER CONSTRUCTION 31 NM SSE OF KHARKOV, NEAR ANDREYEVKA. THIS GAS-BURNING POWER PLANT, WHICH IS IN AN EARLY CONSTRUCTION STAGE, IS RAIL-SERVED.

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2.	BOGATENKA						
	49	17	N	-	35	48	E

25**X**1

LOCATED 1 NM SW OF THIS CITY AND 50 NM ESE OF POLTAVA IS A MILITARY STORAGE AREA, DOUBLE-FENCED AND RAIL-SERVED, WITH ASSOCIATED SUPPORT AREA. THE STORAGE AREA CONTAINS ABOUT 55 WAREHOUSE BUILDINGS, 2 HEAT PLANTS, 1 LARGE BARREL-ROOFED BUILDING, AND MATERIAL IN OPEN STORAGE. THE SUPPORT AREA IS SINGLE-FENCED AND HAS SEVERAL BARRACKS AND ASSOCIATED BUILDINGS.

3. DZERZHINSK 56 15 N - 43 34 E

25X1

THIS URBAN AREA SHOWS INDUSTRIAL ACTIVITY. BUT HAZE AND EXTREME OBLIQUITY PRECLUDE ANY DETAILED INTERPRETATION.

4. <u>KANASH</u> 55 31 N - 47 29 E

25X1

A FENCED POL STORAGE AREA WITH 9 TANKS IS LOCATED IN WOODS 12 NM NE OF KANASH.

5. MELITOPOL 46 50 N - 35 22 E

25**X**1

APPROXIMATELY 20 NM W OF THE CITY ARE EARTH SCARS WHICH MAY BE SURFACE MINING.

6. MORSHANSK 53 27 N - 41 49 E

25X1

COVERAGE INCLUDES THE CITY AND THE RAILROAD YARDS AND SHOPS. BUT SMOKE OBSCURES DETAILS OF THE RAIL YARDS.

7. MITKING AMMUNITION DEPOT 56 46 N - 47 37 E

25X1

THIS RAIL-SERVED SECURED INSTALLATION, SITUATED IN A

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WOODED AREA, CONTAINS APPROXIMATELY 30 BUILDINGS. IT APPEARS ONLY ON FAR-OBLIQUE PHOTOGRAPHY.

8. POLTAVA 49 37 N - 43 30 E

25X1

THIRTEEN NM E OF THE CITY IS AN U/I RAIL-SERVED INSTALLATION, WITH A DOUBLE FENCE INCLOSING 23 WAREHOUSE-TYPE BUILDINGS AND A POSSIBLE POWER PLANT.

9. U/I STORAGE AREA, NEAR RVAZAN
54 20 N - 41 19 E

25**X**1

THIS LARGE INSTALLATION IS HEXAGONAL IN SHAPE, AND IS SURROUNDED BY A WIDE CLEARED STRIP AND DOUBLE SECURITY FENCING. THE AREA CONTAINS 134 BUILDINGS, PROBABLY REVETTED. MORE DETAILED INTERPRETATION WAS IMPAIRED DUE TO THE FACT THAT THE INSTALLATION APPEARS ONLY ON FAR-OBLIQUE PHOTOGRAPHY. HOWEVER, THIS INSTALLATION COMPARES FAVORABLY WITH A STORAGE AREA PREVIOUSLY SEEN AT ELBAN AND REPORTED IN CIA/PIC JM 15-58.

10. <u>SOLILETSK</u> 51 12 N - 54 57 E

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25X1

FAR OBLIQUE PHOTOGRAPHY SHOWS A POL STORAGE AREA WITH 60 VERTICAL, CYLINDRICAL TANKS AND POSSIBLY SOME REFINING FACILITIES LOCATED JUST NORTH OF SOLILETSK AND 4.5 NM NW OF SOLILETSK AIRFIELD.

11. <u>STANTSIYA CHEREMAS</u> 55 40 N - 43 50 E

25X1

NEAR THIS VILLAGE A PROBABLE MILITARY STORAGE DEPOT APPEARS ON FAR OBLIQUE PHOTOGRAPHY. THE DEPOT HAS ABOUT 40 BUILDINGS, 10 OF WHICH ARE REVETTED.

12. <u>STANTSIYA SHAL</u> 54 27 N - 42 48 E

25X1

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THIS IS THE CENTER OF A SERIES OF SMALL RAIL-SERVED COMMUNITIES, CONSISTING OF HOUSING AND LIGHT FABRICATION FACILITIES, WHICH ARE APPARENTLY INVOLVED IN LUMBERING. ACTIVITY EXTENDS ALONG A N/S RAIL LINE ABOUT 15 NM IN BOTH DIRECTIONS FROM STANTSIYA SHAL. THE ONLY SIGNIFICANT FACILITY IS A DOUBLE-FENCED RADAR INSTALLATION (ALSO REPORTED UNDER THE HEADING SAROVA AND MICHURINSK).

13.	STARYY			)Sk	COL		
	51	18	N	-	37	50	Ε

25X1

FULL COVERAGE OF THE CITY SHOWS RAILROAD YARDS AND SHOPS, A BRICK PLANT, A SMALL POL AREA, AND (8 MILES EAST OF IHE CITY) A SMALL PROCESSING PLANT AND STRIP MINING AREA, SERVED BY RAIL, NEAR KRAMSKAYA.

14. <u>STERLITAMAK/ISHIMBAY</u> 53 37 N - 55 58 E -- 53 28 N - 56 02 E

25X1

AN OIL FIELD SW OF THESE TWO CITIES APPEARS ON FAR OBLIQUE PHOTOGRAPHY.

